What is claimed is:

1.   A projection objective for microlithography having a lens arrangement comprising:

a first lens group having positive power;

a second lens group having negative power;

a third lens group having positive power;

a fourth lens group having negative power;

a fifth lens group having positive power; and

a sixth lens group having positive power;

wherein a lens at the end of said second lens group, or a lens at the beginning of said third

lens group, has an aspheric surface.

2.   The projection objective according to claim 1, wherein said lens at the end of said second

lens group is the last lens of the second lens group.

3.   The projection objective according to claim 1, wherein said lens at the beginning of said

third lens group is the first lens of said third lens.

4.   The projection objective according to claim 1, wherein said lens arrangement has only

one lens having an aspheric surface.

5. A projection objective having a lens arrangement having at least a first waist of a pencil of

rays, wherein said lens arrangement comprises at least one of the following:

a lens having an aspheric surface arranged before said first waist,

a lens having an aspheric surface arranged after said first waist, and

lenses having aspheric surfaces arranged before and after said first waist.

6. The projection objective according to claim 5, wherein at least two spherical lenses are arranged between said lenses having aspheric surfaces.

7. The projection objective according to claim 5, wherein said lens arrangement has a first lens group having positive power, a second lens group having negative power, a third lens group having negative power, a fourth lens group having negative power, and a fifth and sixth lens group respectively having positive power, wherein said first lens group has a lens having an aspheric surface.

8. The projection objective according to claim 6, wherein a lens having an aspheric surface is arranged in said second lens group before said waist.

9. The projection objective according to claim 7, wherein said third lens group has a lens having an aspheric surface.

10. The projection objective according to claim 7, wherein said second lens group has an aspheric surface arranged after said waist.

11. The projection objective according to claim 1, wherein said sixth lens group has a first lens having an aspheric surface.

12. The projection objective according to claim 1, wherein a last lens of said third lens group has an aspheric surface.

13. The projection objective according to claim 1, wherein said lens arrangement does not exceed a maximum lens diameter of 280 mm.

14. The projection objective according to claim 13, wherein said lens arrangement does not exceed a maximum lens diameter of 250 mm.

15. The projection objective according to claim 1, having an object side and an image side, wherein said lens arrangement has on said image side a numerical aperture of at least 0.75.

16. The projection objective according to claim 15, wherein said lens arrangement has on said image side a numerical aperture of 0.8.

17. The projection objective according to claim 1, wherein said lens arrangement comprises at least two different materials.

18. The projection objective according to claim 17, wherein said different materials comprise quartz glass and a fluoride or two fluorides.

19. The projection objective according to claim 8, further comprising an aperture stop wherein at least a last two positive lenses before said aperture stop are comprised of CaF_2.

20. The projection objective according to claim 1, wherein said lens arrangement comprises a positive lens comprised of CaF_2, followed by a negative lens of quartz glass, for formation of an achromat.

21. The projection objective according to claim 1, wherein said sixth lens group comprises a lens of CaF_2.

22. A refractive microlithographic projection objective, having a lens arrangement comprising at least one lens with an aspheric lens surface, wherein all aspheric lens surfaces have a vertex radius (R) of at least 300 mm.

23. The refractive microlithographic projection objective according to claim 19, wherein said vertex radius(R) is 350-1,000 mm.

24. The refractive microlithographic objective according to claim 19, wherein said vertex

radius (R) is greater than 1,000 mm.

25. The projection objective for microlithography according to claim 1, wherein the diameter said lens having an aspheric surface is smaller than 90% of the maximum diameter of said lens arrangement.

26. The projection objective according to claim 25, wherein the diameter of said lens having an aspheric surface is smaller than 80% of the maximum diameter of said lens arrangement.

27. A projection exposure device for microlithography, comprising a projection objective according to claim 1.

28. A projection exposure device for microlithography, comprising an excimer laser light source emitting radiation of wavelength shorter than 250 nm, and a projection objective according to claim 19.

29. The projection objective comprising a lens arrangement according to claim 1, wherein said lens arrangement has a high numerical aperture on an objective output side, and all lenses of said lens arrangement have sine values of all angles of incidence of radiation striking a respective lens that are always smaller than the numerical aperture of said lens arrangement.

30. The projection objective according to claim 29, wherein said numerical aperture is in the region of 0.85.

31. The projection objective comprising a lens arrangement according to claim 1, wherein the maximum diameter of lenses of said third lens group is at least 10% smaller than the maximum diameter of lenses of said fifth lens group.

32. The projection objective comprising a lens arrangement according to claim 1, wherein at

least one aspheric lens surface is acted on with an angle loading of at least sin i = 0.75.

33.   A process for the production of microstructured components, comprising:

exposing a substrate provided with a photosensitive layer with ultraviolet light by means

of a mask and a projection exposure device with a lens arrangement according to claim 1, and,

if necessary after development of said photosensitive layer, structuring said substrate

corresponding to a pattern contained on said mask.

Table 1
page 1

m709a

Lenses	Radii	Thicknesses	Glasses	½ x Lens Diameter
	infinity			
L101	-143.20731	17.2885		62.436
	599.77254	6.0000	SIO2	62.972
L102	-3259.25331	7.6370	He	70.359
	-215.68976	17.8056	SIO2	72.015
L103	6352.48088	.7500	He	74.027
	-222.97760	21.0301	SIO2	79.278
L104	375.05253	.7500	He	80.492
	-496.09705	22.1160	SIO2	83.813
L105	191.46102	.7500	He	83.813
	-1207.32624	26.2629	SIO2	81.276
L106	180.94629	.7500	He	80.032
	100.48825	15.5881	SIO2	72.339
L107	-3031.88082	25.3787	He	62.801
	122.14071	6.0000	SIO2	62.147
L108	-295.91467	23.8679	He	58.984
	-187.69352	9.3246	SIO2	59.196
L109	-199.96963	.7500	He	59.874
	184.23629	6.0000	SIO2	59.882
L110	-112.01095	33.9482	He	62.911
	-684.63799 A	6.0000	SIO2	64.128
L111	-225.51622	12.5079	He	75.868
	-137.30628	18.6069	SIO2	78.258
L112	5312.93388	.7500	He	81.928
	-178.79712	38.3345	SIO2	99.979
L113	344.71979	.7500	He	101.920
	-397.29552	39.8511	SIO2	111.294
L114	165.51327	.7500	He	111.237
	7755.09540	39.6778	CAF2	101.552
L115	195.28524	.7500	He	99.535
	119.99272	23.8921	SIO2	87.267
L116	-452.93918	32.2730	He	72.012
	287.33119	6.0000	SIO2	70.763
L117	-218.82578	20.7820	He	66.677
	166.44429	6.0000	SIO2	66.150
L118	-103.90786	40.5757	He	66.003
	5916.68891	6.4932	SIO2	66.694
L119	-344.93456	13.3336	He	80.535
	-165.11801	19.8584	CAF2'	82.790
L120	-11871.72431	.7500	He	86.174
	-174.34079	38.5095	CAF2'	100.670
L121	586.98079	.7500	He	102.666
	-414.20537	31.6915	CAF2.	111.739
	infinity	.7500	He	112.097
	stop	3.6849	He	111.399
	infinity	.0000	He	111.399
L122	284.64742	1.2566	He	111.830
	-414.78783	45.7670	CAF2	114.801
L123	-234.72451	17.9539	He	114.410
		14.5097	SIO2	113.062

	-593.08647	14.7730	He	114.454
L124	-323.13567	42.1874	SIO2	114.235
	-229.06128	.7500	He	117.505
L125	180.27184	31.4105	SIO2	105.659
	652.02194	.7500	He	103.698
L126	143.20049	28.2444	SIO2	91.476
	383.51531	14.7177	He	88.206
L127	-2122.47818	14.1140	SIO2	85.843
	312.60012	1.3119	He	74.816
L128	111.92162	46.5147	SIO2	66.708
	53.69539	2.2604	He	40.084
L129	51.14657	27.3776	CAF2	39.074
	492.53747	3.7815	He	32.621
	infinity	3.0000	SIO2	29.508
	infinity	12.0000		27.848
	infinity			14.021

Aspheric Constants:

Coefficients of the aspheric surface n:

[where n is 21]

EX = 0.0000

$C1 = 0.61839643 \cdot 10^{-8}$

$C2 = -0.11347761 \cdot 10^{-11}$

$C3 = 0.32783915 \cdot 10^{-16}$

$C4 = -0.22000186 \cdot 10^{-20}$

Table 2
page 1

m736a

Lenses	Radii	Thicknesses	Glasses	½ x Lens Diameter
	infinity			
	--	16.6148		
L201	-140.92104	7.0000	SIO2	60.752
	-4944.48962	4.5190		61.267
L202	-985.90856	16.4036	SIO2	67.230
	-191.79393	.7500		68.409
L203	18376.81346	16.5880	SIO2	70.127
	-262.28779	.7500		73.993
L204	417.82018	21.1310	SIO2	74.959
	-356.76055	.7500		77.129
L205	185.38468	23.3034	SIO2	77.193
	-1198.61550	A7500		74.782
L206	192.13950	11.8744	SIO2	73.634
	101.15610	27.6353		68.213
L207	-404.17514	7.0000	SIO2	61.022
	129.70591	24.1893		60.533
L208	-235.98146	7.0584	SIO2	58.732
	-203.88450	.7500		59.144
L209	-241.72595	7.0000	SIO2	60.201
	196.25453	33.3115		60.490
L210	-122.14995	7.0000	SIO2	65.017
	-454.65265 A	10.8840		66.412
L211	-263.01247	22.6024	SIO2	77.783
	-149.71102	1.6818		81.685
L212	-23862.31899	43.2680	SIO2	86.708
	-166.87798	.7500		104.023
L213	340.37670	44.9408	SIO2	106.012
	-355.50943	.7500		115.503
L214	160.11879	41.8646	SIO2	115.398
	4450.50491	.7500		102.982
L215	172.51429	14.8261	SIO2	100.763
	116.88490	35.9100		85.869
L216	-395.46894	7.0000	SIO2	74.187
	178.01469	28.0010		72.771
L217	-176.03301	7.0000	SIO2	66.083
	188.41213	36.7224		65.613
L218	-112.43820	7.0059	SIO2	66.293
	683.42330	17.1440		66.917
L219	-350.01763	19.1569	SIO2	80.240
	-194.58551	.7514		82.329
L220	-8249.50149	35.3656	SIO2	87.159
	-213.88820	.7500		99.995
L221	657.56358	31.3375	SIO2	103.494
	-428.74102	.0000		114.555
	infinity	2.8420		115.245
	stop	.0000		116.016
L222	820.30582	27.7457	SIO2	116.016
	-520.84842	18.4284		118.196
L223	330.19065	37.7586	SIO2	118.605
	-672.92481	23.8692		118.273
				117.550

21-C

L224	-233.67936	10.0000	SIO2	116.625
	-538.42627	10.4141		117.109
L225	-340.26626	21.8583	SIO2	116.879
	-224.85666	.7500		117.492
L226	146.87143	34.5675	SIO2	100.303
	436.70958	.7500		97.643
L227	135.52861	29.8244	SIO2	86.066
	284.57463	18.9234		79.427
L228	-7197.04545	11.8089	SIO2	72.964
	268.01973	.7500		63.351
L229	100.56453	27.8623	SIO2	56.628
	43.02551	2.0994		36.612
L230	42.30652	30.9541	SIO2	36.023
	262.65551	1.9528		28.009
	infinity	12.0000		27.482
	infinity			13.602

Aspheric Constants:

Coefficients of the aspheric surface $\underline{n}$:

[where $\underline{n}$ is 29]

$EX = -0,17337407 \cdot 10^3$
$C\,1 = 0,15292522 \cdot 10^{-7}$
$C\,2 = 0,18756271 \cdot 10^{-11}$
$C\,3 = -0,40702661 \cdot 10^{-16}$
$C\,4 = 0,26176919 \cdot 10^{-19}$
$C\,5 = -0,36300252 \cdot 10^{-23}$
$C\,6 = 0,42405765 \cdot 10^{-27}$

Coefficients of the aspheric surface $\underline{n}$:

[where $\underline{n}$ is 27]

$EX = -0,36949981 \cdot 10^1$
$C\,1 = 0,20355563 \cdot 10^{-7}$
$C\,2 = -0,22884234 \cdot 10^{-11}$
$C\,3 = -0,23852614 \cdot 10^{-16}$
$C\,4 = -0.19091022 \cdot 10^{-19}$
$C\,5 = 0,27737562 \cdot 10^{-23}$
$C\,6 = -0,29709625 \cdot 10^{-27}$

Table 3
page 1

m745a

Lenses	Radii	Thicknesses	Glasses	½ x Lens Diameter
	infinity	17.8520		
L301	-131.57692	7.0000	SIO2	60.958
	-195.66940	.7500		61.490
L302	-254.66366	8.4334	SIO2	64.933
	-201.64480	.7500		65.844
L303	-775.65764	14.0058	SIO2	67.386
	-220.44596	.7500		69.629
L304	569.58638	18.8956	SIO2	70.678
	-308.25184	.7500		72.689
L305	202.68033	20.7802	SIO2	72.876
	-1120.20883	A7500		71.232
L306	203.03395	12.1137	SIO2	70.282
	102.61512	26.3989		65.974
L307	-372.05336	7.0000	SIO2	59.566
	144.40889	23.3866		59.203
L308	-207.93626	7.0303	SIO2	58.326
	-184.65938	.7500		58.790
L309	-201.97720	7.0000	SIO2	59.985
	214.57715	33.1495		60.229
L310	-121.80702	7.0411	SIO2	65.721
	-398.26353 A	9.7571		67.235
L311	-242.40314	22.4966	SIO2	79.043
	-146.76339	.7553		81.995
L312	-2729.19964	45.3237	SIO2	87.352
	-158.37001	.7762		104.995
L313	356.37642	52.1448	SIO2	107.211
	-341.95165	1.1921		118.570
L314	159.83842	44.6278	SIO2	118.519
	2234.73586	.7698		105.627
L315	172.14697	16.8360	SIO2	102.722
	119.53455	36.6804		88.037
L316	-392.62196	7.0000	SIO2	75.665
	171.18767	29.4986		74.246
L317	-176.75022	7.0000	SIO2	67.272
	186.50720	38.4360		66.843
L318	-113.94008	7.0213	SIO2	67.938
	893.30270	17.7406		68.650
L319	-327.77804	18.9809	SIO2	82.870
	-192.72640	.7513		85.090
L320	-3571.89972	34.3608	SIO2	89.918
	-209.35555	.7500		103.882
L321	676.38083	32.6220	SIO2	106.573
	-449.16650	.0000		119.191
	infinity	2.8420		119.960
	stop	.0000		120.991
L322	771.53843	30.6490	SIO2	120.991
	-525.59771	13.4504		123.568
L323	330.53202	40.0766	SIO2	124.005
	-712.47666	23.6787		123.477
				122.707

21-E

L324	-250.00950	10.0000	SIO2	121.877
	-513.10270	14.8392		121.995
L325	-344.63359	20.3738	SIO2	121.081
	-239.53067	.7500		121.530
L326	146.13385	34.7977	SIO2	102.544
	399.32557	.7510		99.992
L327	132.97289	29.7786	SIO2	87.699
	294.53397	18.8859		82.024
L328	-3521.27938	A11.4951	SIO2	75.848
	287.11066	.7814		65.798
L329	103.24804	27.8602	SIO2	58.287
	41.64286	1.9089		36.734
L330	41.28081	31.0202	SIO2	36.281
	279.03201	1.9528		28.934
	infinity	12.0000		28.382
	infinity			13.603

Aspheric Constants:

Coefficients of the aspheric surface $\underline{n}$:

     [where $\underline{n}$ is 29]

$EX = -0.16784093 \cdot 10^3$
$C1 = 0.49600479 \cdot 10^{-9}$
$C2 = 0.31354487 \cdot 10^{-11}$
$C3 = -0.65827200 \cdot 10^{-16}$
$C4 = 0.44673095 \cdot 10^{-19}$
$C5 = -0.73057048 \cdot 10^{-23}$
$C6 = 0.91524489 \cdot 10^{-27}$

Coefficients of the aspheric surface $\underline{n}$:

     [where $\underline{n}$ is 27]

$EX = -0.22247325 \cdot 10^1$
$C1 = 0.24479896 \cdot 10^{-7}$
$C2 = -0.22713172 \cdot 10^{-11}$
$C3 = 0.36324126 \cdot 10^{-16}$
$C4 = -0.17823969 \cdot 10^{-19}$
$C5 = 0.26799048 \cdot 10^{-23}$
$C6 = -0.27403392 \cdot 10^{-27}$

Coefficients of the aspheric surface $\underline{n}$:

     [where $\underline{n}$ is 31]

$EX = 0$
$C1 = -0.45136584 \cdot 10^{-09}$
$C2 = 0.34745936 \cdot 10^{-12}$
$C3 = 0.11805250 \cdot 10^{-17}$
$C4 = -0.87762405 \cdot 10^{-21}$

Table 4

page 1

m791a

Lenses	Radii	Thicknesses	Glasses	½ x Lens Diameter
	infinity	11.4557		
L401	-273.19566	7.0000	SIO2	61.339
	-277.09708	.7000		62.263
L402	-861.38886	8.9922	SIO2	63.765
	-339.26281	.7000		64.989
L403	118124.13719	11.2867	SIO2	65.826
	-365.70154	.7000		66.916
L404	685.10936	13.1651	SIO2	67.416
	-485.98278	.7000		67.995
L405	387.56973	17.2335	SIO2	68.012
	-473.09537 A	.7000		67.247
L406	268.03965	9.9216	SIO2	66.728
	149.12863	23.8122		62.508
L407	-184.82383	7.0000	SIC2	58.531
	176.80719	21.4194		58.029
L408	-186.59114	7.0000	SIO2	57.646
	218.73570	29.5024		58.045
L409	-129.31068	7.0000	SIO2	63.566
	-531.44773 A	17.2306		65.030
L410	-307.52016	22.4527	SIO2	76.481
	-148.36184	.7000		85.643
L411	-1302.18676	41.0516	SIO2	88.946
	-162.48723	.7000		105.065
L412	621.16978	41.1387	SIO2	107.106
	-294.49119	.7000		118.007
L413	160.06951	49.7378	SIO2	118.347
	-2770.71439 A	7000		109.803
L414	152.16529	16.7403	SIO2	107.961
	106.43165	39.9369		89.160
L415	-530.55958	7.0000	SIO2	76.189
	170.63853	31.4993		74.955
L416	-164.61084	7.0000	SIO2	68.381
	262.65931	36.2904		67.993
L417	-113.57141	8.4328	SIO2	69.679
	772.56149	21.7682		70.272
L418	-278.33295	16.4890	SIO2	85.377
	-198.24799	.8689		87.710
L419	-3464.64038	37.5900	SIO2	92.554
	-214.63481	1.1929		107.590
L420	2970.07848	32.3261	SIO2	111.045
	-350.93217	2.5303		122.434
L421	1499.34256	25.8265	SIO2	123.849
	-561.19644	.0000		127.128
	infinity	.7510		127.371
	stop	.0000		126.559
L422	821.09016	39.5191	SIO2	126.559
	-1995.20557	.7000		127.453
L423	337.02437	41.8147	SIO2	127.499
	-659.23025	25.0233		126.619
				125.851

21-6

L424	-242.66564	7.0000	SIO2	124.960
	-891.19390	9.7905		125.057
L425	-492.17516	41.0678	SIO2	124.887
	-242.55195	.7000		125.845
L426	145.04614	37.2406	SIO2	104.033
	406.88892	.7008		101.079
L427	119.31280	31.5532	SIO2	85.742
	249.69473	15.2917		79.561
L428	1411.93157	7.8700	SIO2	74.994
	281.90273	.7011		66.830
L429	143.95136	55.0835	SIO2	61.517
	404.13980	15.0000		32.177
	infinity	.0001		13.603
	infinity			13.603

Aspheric Constants:

Coefficients of the aspheric surface $\underline{n}$:
　　　　　　　　　　[where $\underline{n}$ is 27]

$EX = 0{,}45321787 * 10^2$
$C\,1 = 0{,}12027601 * 10^{-7}$
$C\,2 = -0{,}16206398 * 10^{-11}$
$C\,3 = -0{,}41686011 * 10^{-15}$
$C\,4 = 0{,}38440137 * 10^{-19}$
$C\,5 = -0{,}15095918 * 10^{-23}$
$C\,6 = -0{,}84812561 * 10^{-28}$

Coefficients of the aspheric surface $\underline{n}$:
$EX = 0$　　　　　　　[where $\underline{n}$ is 29]
$C\,1 = -0{,}97452539 * 10^{-7}$
$C\,2 = 0{,}32591079 * 10^{-11}$
$C\,3 = 0{,}97426255 * 10^{-16}$
$C\,4 = -0{,}846124 * 10^{-20}$
$C\,5 = -0{,}12332031 * 10^{-23}$
$C\,6 = 0{,}14443713 * 10^{-27}$

Coefficients of the aspheric surface $\underline{n}$:
$EX = 0$　　　　　　　[where $\underline{n}$ is 33]
$C\,1 = 0{,}53144137 * 10^{-8}$
$C\,2 = 0{,}21837618 * 10^{-12}$
$C\,3 = 0{,}22801998 * 10^{-18}$
$C\,4 = -0{,}87807963 * 10^{-21}$
$C\,5 = 0{,}42592446 * 10^{-25}$
$C\,6 = -0{,}85709164 * 10^{-30}$

Table 5
page 1

j430a

Lenses	Radii	Thicknesses	Glasses	½ x Lens Diameter
	infinity	9.9853		
L501	-265.92659	6.0000	SIO2	61.649
	857.92226	5.9813		62.237
L502	-2654.69270	14.4343	SIO2	65.916
	-244.65690	.7500		66.990
L503	1038.40194	15.9955	SIO2	68.482
	-333.95446	.7500		71.883
L504	359.47552	18.5128	SIO2	72.680
	-532.67816	.7500		74.430
L505	213.38035	21.4562	SIO2	74.416
	-1441.22634	A.7500		72.985
L506	251.90156	6.5306	SIO2	72.045
	115.92184	28.4856		67.809
L507	-267.21040	6.0000	SIO2	62.818
	175.09702	23.2443		62.411
L508	-213.08557	6.0000	SIO2	61.923
	199.61141	30.8791		62.365
L509	-158.73046	6.0337	SIO2	68.251
	-1108.92217	A10.9048		69.962
L510	-314.37706	20.6413	SIO2	81.119
	-169.59197	.8014		84.163
L511	-3239.97175	43.6396	SIO2	88.902
	-168.44726	.7500		106.289
L512	495.41910	48.8975	SIO2	108.724
	-288.85737	.7500		123.274
L513	153.24868	48.7613	SIO2	123.687
	920.32139 A	.7500		113.393
L514	163.02602	15.7110	SIO2	111.134
	124.97610	44.2664		96.188
L515	-422.99493	6.0000	SIO2	84.961
	184.60620	31.4986		83.633
L516	-241.93022	6.0000	SIO2	76.498
	168.30899	51.3978		76.180
L517	-117.43130	6.5332	SIO2	77.396
	2476.47953	21.4666		78.345
L518	-311.36041	15.2223	SIO2	98.469
	-221.58556	.7500		101.209
L519	-934.37047	37.6761	SIO2	105.324
	-216.75809	.7500		122.239
L520	3623.94786	39.6266	SIO2	125.425
	-370.69232	1.1289		146.583
L521	1209.82944	39.1543	SIO2	148.219
	-613.71745	.0000		157.194
	infinity	.7500		157.954
	stop	.0000		158.061
L522	709.88915	36.2662	SIO2	158.061
	-1035.75796	.7500		160.170
L523	313.44889	58.8000	SIO2	160.137
	-1046.56219	28.7484		155.263
				153.730

L524	-328.67790	15.0000	SIO2	152.447
	-1283.32936	14.7084		148.826
L525	-540.24577	23.9839	SIO2	148.336
	-305.19883	.7510		148.189
L526	152.28321	42.3546	SIO2	114.055
	384.50964	.7531		109.924
L527	124.66784	31.8554	SIO2	91.106
	279.60513	16.6796		86.038
L528	-28987.53974	7.4387	SIO2	82.126
	316.02224	.8631		72.044
L529	180.51161	54.1269	SIO2	67.036
	1341.25511	15.0000		37.374
	infinity.	.0001		13.604
	infinity -			13.604

Aspheric Constants:

Coefficients of the aspheric surface n: [where n is 29]

$EX = -0,27012883 \cdot 10^{3}$
$C\,1 = -0,48014089 \cdot 10^{-7}$
$C\,2 = 0,30075830 \cdot 10^{-11}$
$C\,3 = 0,34922943 \cdot 10^{-16}$
$C\,4 = 0,26946301 \cdot 10^{-19}$
$C\,5 = -0,58250631 \cdot 10^{-23}$
$C\,6 = 0,68991391 \cdot 10^{-27}$

Coefficients of the aspheric surface n: [where n is 27]

$EX = 0,41249481 \cdot 10^{1}$
$C\,1 = -0,38239182 \cdot 10^{-8}$
$C\,2 = -0,14976009 \cdot 10^{-11}$
$C\,3 = -0,25206193 \cdot 10^{-16}$
$C\,4 = -0,78282128 \cdot 10^{-20}$
$C\,5 = 0,13017800 \cdot 10^{-23}$
$C\,6 = -0,14205614 \cdot 10^{-27}$

Coefficients of the aspheric surface n: [where n is 33]

$EX = 0,26320110 \cdot 10^{1}$
$C\,1 = 0,27448935 \cdot 10^{-8}$
$C\,2 = -0,18100074 \cdot 10^{-12}$
$C\,3 = 0,58696756 \cdot 10^{-17}$
$C\,4 = -0,58955753 \cdot 10^{-21}$
$C\,5 = 0,16526308 \cdot 10^{-25}$
$C\,6 = -0,25708759 \cdot 10^{-30}$

21-J

Table 5
page 3

Coefficients of the aspheric surface $\underline{n}$:

EX $=-0{,}96865859 \cdot 10^{5}$ [where $\underline{n}$ is 31]
C 1 $=-0{,}42411179 \cdot 10^{-8}$
C 2 $= 0{,}12306068 \cdot 10^{-12}$
C 3 $= 0{,}69229786 \cdot 10^{-17}$
C 4 $= 0{,}80135737 \cdot 10^{-20}$
C 5 $=-0{,}14022540 \cdot 10^{-23}$
C 6 $= 0{,}79827308 \cdot 10^{-28}$

21-K

m767a

Lenses	Radii	Thicknesses	Glasses	½ x Lens Diameter
	infinity	5.9005	N2	32.429
L601	-125.95821	3.6410	CAF2	32.780
	243.24465	5.2309	He	35.323
L602	2472.77263	9.2265	CAF2	36.826
	-132.46523	.3958	He	37.854
L603	544.60759	8.6087	CAF2	40.080
	-188.98512	.6007	He	40.516
L604	180.26444	10.3984	CAF2	41.764
	-394.70139	.4244	He	41.743
L605	101.06312	12.8236	CAF2	40.955
	-691.58627 A	.5111	He	40.455
L606	135.75849	3.1245	CAF2	37.553
	57.03094	16.2396	He	34.284
L607	-268.26919	5.9149	CAF2	33.871
	116.53669	10.9654	He	33.188
L608	-142.54675	3.2195	SIO2	33.372
	100.09171	16.1921	He	35.360
L609	-83.03185	3.2311	SIO2	36.264
	-453.73264 A	5.1711	He	41.718
L610	-167.92924	12.0560	CAF2	43.453
	-93.29791	.4204	He	47.010
L611	-1270.46545	24.2891	CAF2	56.224
	-90.89540	1.1471	He	58.224
L612	266.81271	25.6379	CAF2	66.498
	-171.23687	.3519	He	66.755
L613	82.41217	26.8409	CAF2	61.351
	529.17259 A	.5132	He	60.098
L614	81.87977	8.2278	CAF2	50.462
	64.06536	22.9801	He	44.346
L615	-259.83061	3.3437	SIO2	43.473
	124.29419	13.5357	He	40.266
L616	-197.29109	3.0000	SIO2	39.809
	87.83707	24.5613	He	39.571
L617	-64.97274	4.6170	SIO2	40.050
	1947.71288	9.3909	He	49.830
L618	-182.16003	7.8052	CAF2	51.480
	-118.82950	.3753	He	53.449
L619	-633.93522	19.7976	CAF2	63.119
	-115.14087	.3706	He	64.793
L620	2647.04517	19.8039	CAF2	75.458
	-197.41705	2.7167	He	76.413
L621	668.45083	30.1057	CAF2	81.369
	-322.45899	.0001	He	82.659
	infinity	.3948	He	82.583
	stop	.0000		82.583
L622	395.84774	16.8734	CAF2	83.488
	-635.79877	.3500	He	83.449
L623	165.28880	28.1341	CAF2	80.761
	-698.21798	15.6657	He	80.133

21-L

Table 6
page 2

L624	-175.54365	7.9803			
	-571.27581	9.7972	SIO2		79.485
L625	-265.73712	11.6714	He		78.592
	-156.05301	.3500	CAF2		78.015
L626	79.45912	22.6348	He		78.036
	199.26460	.3500	CAF2		60.151
L627	67.01872	15.8836	He		57.925
	140.01631	8.6050	CAF2		48.063
L628	2265.71693	A 4.0939	He		45.305
	167.06050	2.0915	SIO2		43.177
L629	102.24013	24.5664	He		38.352
	662.00756	9.4740	CAF2		34.878
	UNENDL	.0001	N2		22.044
	UNENDL		N2		7.166
					7.166

Aspheric Constants:

Coefficients of the aspheric surface n: [where n is 29]

$EX = -0,7980946 \cdot 10^2$
$C1 = -0,21353640 \cdot 10^{-6}$
$C2 = 0,56257 \cdot 10^{10}$
$C3 = -0,39122939 \cdot 10^{-14}$
$C4 = -0,24089766 \cdot 10^{-18}$
$C5 = 0,30268982 \cdot 10^{-22}$
$C6 = 0,1437923 \cdot 10^{-25}$

Coefficients of the aspheric surface n: [where n is 27]

$EX = 0,1660595 \cdot 10^1$
$C1 = -0,12449719 \cdot 10^{-7}$
$C2 = -0,39565 \cdot 10^{10}$
$C3 = -0,10241741 \cdot 10^{-14}$
$C4 = -0,19631485 \cdot 10^{-17}$
$C5 = 0,11604236 \cdot 10^{-20}$
$C6 = -0,4669584 \cdot 10^{-24}$

Coefficients of the aspheric surface n: [where n is 33]

$EX = 0,1614147 \cdot 10^0$
$C1 = 0,14130608 \cdot 10^{-7}$
$C2 = -0,9747553 \cdot 10^{-11}$
$C3 = 0,20478684 \cdot 10^{-15}$
$C4 = -0,17732262 \cdot 10^{-18}$
$C5 = 0,29715991 \cdot 10^{-22}$
$C6 = -0,19032581 \cdot 10^{-26}$

21-M

Table 6
page 3

Coefficients of the aspheric surface n:

EX = 0   [where n is 31]
C 1 = -0,18139679 $\cdot$ 10^{-7}
C 2 = 0,26109069 $\cdot$ 10^{-11}
C 3 = 0,23340548 $\cdot$ 10^{-14}
C 4 = 0,29943791 $\cdot$ 10^{-17}
C 5 = -0,13596787 $\cdot$ 10^{-20}
C 6 = 0,21788235 $\cdot$ 10^{-24}